

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A demultiplexer, comprising:
a single molded piece comprising an integrated first section, second section, third section, and diffraction grating,
the first section capable of receiving a WDM beam,
the diffraction grating integrally formed on an external surface of the first section ~~[[of]]~~ and an external surface of the single molded piece, the WDM beam being directed onto ~~[[the]]~~ an internal surface of the diffraction grating, and the diffraction grating providing angularly separated beams on ~~[[the]]~~ an external surface of the diffraction grating; and
the third section positioned relative to the first section to receive spatially separated light beams of a selected diffraction order from the diffraction grating.
2. (Previously Presented) The demultiplexer of Claim 1, further including
a reflective surface integrally formed on the first section that directs the WDM beam received into the first section onto a bottom surface of the diffraction grating.
3. (Previously Presented) The demultiplexer of Claim 2, wherein
the reflective surface is coated external to the first section with thin film to enhance internal reflection of the WDM beam.
4. (Previously Presented) The demultiplexer of Claim 2, wherein
the reflective surface is coated with a reflective film.

5. (Previously Presented) The demultiplexer of Claim 4, wherein
the reflective film is a gold film.
6. (Previously Presented) The demultiplexer of Claim 4, wherein
the reflective film is a silver film.
7. (Previously Presented) The demultiplexer of Claim 1, wherein
the first section includes an integrally formed collimating lens integrally formed
into the single piece,
the integrally formed collimating lens collimating the WDM beam received from
an optical fiber.
8. (Previously Presented) The demultiplexer of Claim 7, further including
a barrel integrally formed into the single piece with the first section,
the barrel capable of receiving an optical fiber and aligning the optical fiber with
the collimating lens.
9. (Previously Presented) The demultiplexer of Claim 7, further including
a post integrally formed into the single piece with the first section,
the post capable of receiving a barrel,
the barrel capable of receiving an optical fiber and aligning the optical fiber with
the collimating lens.
10. (Original) The demultiplexer of Claim 8, wherein
the barrel includes a fiber access and a fiber stop.

11. (Original) The demultiplexer of Claim 9, wherein
the barrel includes a fiber access and a fiber stop.
12. (Original) The demultiplexer of Claim 1, wherein
the third section includes a focusing lens.
13. (Original) The demultiplexer of Claim 12, wherein
the third section further includes a support around the focusing lens.
14. (Original) The demultiplexer of Claim 13, wherein
a detector array can be mounted on the support so that the spatially separated
beams are directed onto individual detectors of the detector array.
15. (Previously Presented) The demultiplexer of Claim 13, wherein
optical fibers are arranged to receive individual ones of the spatially separated
beams.
- 16-22. (Canceled)
23. (Currently amended) A demultiplexer, comprising:
means for separating an input light beam into constituent parts ~~with a molded~~
~~single piece component~~ having a diffraction means ~~on an external surface~~
~~of the single piece component~~;
means for detecting the constituent parts from the ~~molded single piece component~~
means for separating;
means for aligning the means for separating with the means for detecting, wherein
the means for separating, the means for detecting, and the means for
aligning are integrated as a single piece component, and the diffraction

means is on an external surface of the means for separating and an external surface of the molded single piece component.